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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,393	02/23/2004	Stephan H. Wolf	212/561	6517

23371 7590 01/12/2005

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EXAMINER

ROSE, ROBERT A

ART UNIT	PAPER NUMBER
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3723

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/785,393

Applicant(s)

WOLF, STEPHAN H.

Examiner

Robert Rose

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3723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35-43 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 35,42 and 43 is/are rejected.
7) ☒ Claim(s) 36-41 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Receipt is acknowledged of Applicant's Preliminary Amendment, filed July 19, 2004.
2. Claims 1-34 have been canceled.
3. Claims 35-43 are presented for examination.
4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 35, and 42-43 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by Treur et al. Treur et al disclose a method of polishing a wafer comprising all of the subject matter set forth in applicant's claims above. A polishing pad having optical means within the pad senses an optical characteristic of the wafer during polishing, to determine a polishing endpoint. The polishing pad has an optical window with an optical fiber bundle routing a light signal through a central aperture in the platen to a laser interferometer, by way of a rotary optical coupler located below the platen drive shaft.
6. Claims 36-41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kaanta et al is cited of interest to show a polishing pad having

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sensors in the form of electrodes embedded within the pad to measure the conductivity of a wafer during polishing, with the signal routed to an infrared transmitter through a centrally located tube on the polishing pad and coupled to a stationary infrared sensor. Bibby, Jr. et al is cited of interest to show a polishing apparatus having plural fiberoptic cables embedded in a pad backer to direct light to the pad surface and measure the reflected light. Swedek et al, and Birang et al are cited to show other optical endpoint monitoring devices for cmp apparatus having light emitters and sensors located within a platen underlying the polishing pad. Li et al is cited of interest to show a rotary signal coupler for a wafer carrier used in a cmp device.

8. Any inquiry concerning this communication should be directed to Robert Rose at telephone number (571) 272-4494.

Robert Rose
Primary Examiner
Art Unit 3723



Rr

January 07, 2005.